

**Application No.: 10/550,752**  
**Filing Date: September 5, 2007**

## **REMARKS**

Claims 1-11, 14-17 and 19-22 are presently pending. As discussed below, Claims 14-22 correspond to original Claims 12-20, respectively. Claim 18 is canceled without prejudice. Amendments to the claims are discussed below. No new matter has been added herewith. The following addresses the substance of the Office Action.

### **Objections**

The numbering of the Claims was objected to because the original numbering of the claims must be preserved throughout prosecution. When the claims were amended at the International Bureau on 28 January 2004, Claims 10 and 11 were presented in duplicate, redundantly labeled as Claims 10 and 11. Subsequently, the Applicant canceled the redundant Claims 10 and 11 by Preliminary Amendment and did not renumber the subsequent claims. The Examiner stated that “Misnumbered Claims 10-20 have been renumbered 12-22.” Accordingly, Claims 12 and 13 are marked with the status identifier “Canceled” and Claims 14-22 correspond to original Claims 12-20, respectively. Claim 15, which has the status identifier “Previously presented,” corresponds to original Claim 13.

Claims 2, 9 and 11 were objected to because of various informalities. The Examiner suggested changing “tile” in Claims 2(g), 9 and 11 to --the--, and “(d)” in Claim 11 to --(d)--. Applicant has deleted recitation of “tile” in Claims 2(g) and 11 and has amended Claim 9 in accordance with the Examiner’s recommendation.

### **Enablement**

Claims 2-11 were rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the enablement requirement. In particular, step (f) of Claim 2 allows the jam mixture to cool to room temperature before applying food preservative. However, the Examiner noted that all Examples in the Specification teach that the preservative sodium benzoate is dissolved in warm water and added to the jam mixture before filling hot into glass bottles. Thus, the Examiner concluded that there is insufficient guidance provided by the Specification such that one skilled in the art would cool the jam to room temperature before adding the preservative.

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The Applicant has amended steps (f) and (g) of Claim 2 to recite:

- (f) adding food preservatives to the mixture of step (e) in the range of 50 ppm to 250 ppm, and
- (g) allowing the mixture of step (f) to cool to room temperature to obtain the custard apple jam.

The amendments overcome the issue of enablement as the amended claims are supported by the examples in the specification. Accordingly, the Applicant respectfully requests that the rejection under 35 U.S.C. § 112, first paragraph be withdrawn.

#### **Indefiniteness**

Claims 1, 2, 11, 14 and 21 were rejected under 35 U.S.C. § 112, second paragraph as being indefinite.

With regard to Claim 1, the Examiner stated that recitation of “such as” was indefinite because it was unclear, which, if any, of the listed sweetening agents preservatives, setting agents and food additives are to be added. The Applicant has deleted recitation of “such as” from Claim 1(c), and has amended step (c) to recite “adding a syrup comprising sweetening agent, preservatives, setting agent and other food additives.”

With regard to Claim 2, the Examiner indicated that the basis (e.g., wet weight or dry weight) of the ratio of sweetening agent to custard apple pulp was unclear. Applicant has amended Claim 2 to specify that the ratio is based on a wet weight of the pulp to a dry weight of the sweetening agent.

With regard to Claim 2(g), the Examiner indicated that recitation of “permitted” food preservatives was unclear. The Applicant has amended Claim 2(g) by deleting recitation of “permitted.”

With regard to Claim 11, it was unclear what the claimed percentages of sugar, pectin and citric acid were based on, as they did not add up to 100%. Claim 11 is amended to specify that the syrup referred to in Claim 2 comprises 10 to 30% by wt. of sugar, 0.7 to 1.0 % by wt. of pectin and 0.4 to 0.55 % by wt. of citric acid.

With regard to Claim 14 limits the temperature of Claim 2(c) to the range of 95°C to 98°C. However, step (c) of Claim 2 calls for dehydrating at a temperature of below 55°C and

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step (e) recites boiling the mixture. The Applicant has amended Claim 14 to recite that in step (e), the mixture is boiled at a temperature ranging between 95°C to 98°C.

With regard to Claim 17, the Examiner pointed out that, since the custard apple pulp comprises moisture, it was unclear how the claimed percentages translate to the final jam product. For clarification, Claim 17 is amended to recite that the jam contains 35-55% by wet wt. of custard apple pulp.

With regard to Claim 21, there was insufficient antecedent basis for recitation of “the flavoring agent.” Amended Claim 21 depends from Claim 16, which recites “a flavoring agent.”

In view of the amendments to the claims, the rejections under 35 U.S.C. § 112, second paragraph have been rendered moot. Applicant respectfully requests withdrawal of these rejections.

### **Obviousness**

#### *McGee in view of Rao and Dauthy*

Claims 1 and 16-22 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McGee, H (1984 in On Food and Cooking, pp 170-172) in view of Rao, S.N. (1974 “Anonas the legendary Fruit” *Indian Horticulture, Agric Coll Bapatia Ap India* 19:19-21) and Dauthy, M.E. (1995 “Fruit and Vegetable Processing” FAO Agricultural Services Bulletin 119, Section 5.2 “Chemical Preservation). The Applicant notes that McGee fails to teach preparing jam specifically from custard apple fruit. Accordingly, the Examiner has cited Rao, which discloses the existence of the custard apple of India (i.e., *Annona squamosa*) and, as the Examiner pointed out at page 10 of the Office Action, Rao teaches custard jam as a means for preserving custard apple. Rao noted that the production of custard apple jam had been attempted “with success.” However, Rao does not teach any process for preparing jam from the custard apple. Dauthy is cited because it teaches the use of sodium benzoate as a common preservative in foods including jams.

*Annona squamosa* is a tropical fruit that presents inherent difficulties with regard to the preparation of a jam. As outlined in the present specification, conventional processes that are successful for preparing jams from fruits other than *Annona squamosa*, such as apples, pears, mango, peach, pineapple etc., do not impart desired organoleptic properties when used in conjunction with custard apple fruit. Specifically, previous attempts at making jam from *Annona*

*squamosa* were in fact unsuccessful in the sense that the custard apple imparts unfavorable characteristic properties of discoloration, development of bitterness and off-flavor when prepared by conventional techniques of jam making. Thus, the custard apple fruit has certain unique qualities that are different from other types of fruits. Based on the combined teachings of McGee and Rao, and since Rao had claimed that jam production had been attempted "with success," there was no recognition of a problem to be solved. Thus, there would have been no reason for a person of ordinary skill in the art to modify the procedure taught by McGee to make jam from the custard apple. Accordingly, the skilled artisan would have relied on conventional techniques, such as the method disclosed by McGee, and the jam thus prepared would have had undesirable organoleptic properties.

In contrast to the teachings of McGee, the Applicant has surprisingly discovered a specific process that overcomes the three characteristic problems of discoloration, development of bitterness and off-flavor. In particular, the Applicant has developed a process that involves a specific sequence of four steps including: (a) mixing a sweetening agent with custard apple pulp; (b) partially dehydrating the mixture of step (a) below the temperature of 55°C; (c) adding a syrup comprising sweetening agent, preservatives, setting agent and other food additives; and (d) boiling the mixture of step (c) at a temperature between 90-100°C and cooling the mixture to obtain the jam. Neither McGee nor Rao provide any reason to perform heating and addition of sweetening agent in the specified sequence of steps (a)-(d).

The Examiner remarked at page 6 of the Office Action that "The addition of sugar to the pulp before cooking and after the pulp has been cooked is considered to be an obvious variation." However, the Examiner has not established why one of ordinary skill in the art would go to the trouble of adding complexity to the process of McGee by including the specific sequence of steps outlined in Claim 1, steps (a)-(d), particularly since there was no recognition by McGee and Rao of a problem to be solved. It appears that the Examiner has reached the conclusion that steps (a)-(d) are obvious based on hindsight knowledge gleaned from the teachings of the present application. The Examiner has not appreciated the fact that the Applicant has surprisingly developed a specific trick or technique that overcomes the problems in the prior art of not being able to produce a jam that lacked the undesirable characteristics of discoloration, development of bitterness and off-flavor.

Based on the prior art, a person of ordinary skill in the art would have had no reason to alter conventional processes, such as the process disclosed McGee, by adding sweetener and cooking in the specific four stages outlined by steps (a)-(d) of Claim 1. Importantly, these four steps not only include the addition of sweetening agent in two stages, they also include two phases of cooking. Even if one of ordinary skill in the art had thought of adding sweetener in two stages, there would have been no expectation of success in achieving a jam that lacked the undesirable traits of discoloration, development of bitterness and off-flavor. Moreover, the Applicant has found that if the custard apple pulp is not dehydrated, the shelf life of the custard apple jam is not high. Thus, in addition to overcoming the undesirable characteristics of discoloration, development of bitterness and off-flavor, the novelty of the presently claimed process also lies in the extended shelf life due to partial dehydration of a mixture comprising custard apple pulp and sweetening agent at a temperature of less than 55°C.

In view of the foregoing, the Applicant respectfully requests that the rejection under 35 U.S.C. § 103(a) be withdrawn.

*McGee in view of Rao, Braman, Francis and Dauthy*

Claims 2-11, 14 and 15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over McGee (*supra*) in view of Rao (*supra*), Braman, T.F. (1992 "Use of vacuum pan for fruit products" The American Food Journal 17: 9, 10, 26), Francis, F.J. (2000 in Encyclopedia of Food Science and Technology 2<sup>nd</sup> Ed pp. 1149-1153) and Dauthy(*supra*).

However, neither Braman nor Francis provide any additional information that would have led the skilled artisan to develop the process outlined by Claim 1. Since Claims 2-11, 14 and 15 are either directly or indirectly dependent upon Claim 1, the arguments set forth above also apply. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the rejection.

No Disclaimers or Disavowals

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other

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broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

### **CONCLUSION**

In view of Applicants' amendments to the Claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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